



SOMAY PRODUCTS, INC.

4301 N.W. 35th AVENUE
MIAMI, FLORIDA 33142-4382, U.S.A.

TEL: (305) 633-6333 TOLL FREE: 888-2-4-SOMAY FAX: (305) 638-5524
e-mail: paint@somay.com URL: http://www.somay.com

SINCE 1926 . . . MANUFACTURER OF DECORATIVE AND PROTECTIVE PAINTS AND WATERPROOFING COATINGS



**AGAIN PROVEN
THE BEST &
MOST RESISTANT
TO MILDEW**

(36% better than the next best paint)

Proven again by another Independent Laboratory Study.

"To accelerate the evaluation and comparison of the effectiveness of antimicrobial or fungistatic paints, paint samples are intentionally inoculated with the various fungi known to cause mildew, and the inoculated paint samples are then placed in a controlled environment, heated to 25° C (= 77° F) with very high relative humidity (90% +) and kept in total darkness (no sunlight exposure) to intentionally force mildew growth, to determine which paint most effectively resists the growth of mildew on its surface."

CONCLUSION: SOMAY "Steri-Shield"® Fungistatic Paint provides the greatest resistance to mildew growth ... of all paints tested. You can't buy better protection! And it costs ONLY 3.7¢ per sq. ft. per mil (1/1000 inch) dry film thickness (DFT) (= 7.4¢ for 2 mils, 11.1¢ for 3 mils or 14.8¢ for 4 mils). Buy SOMAY "Steri-Shield" Factory-Direct, Wholesale, "Cash & Carry" (or Credit Card & FOB) directly from "The Somay Paint Factory" in Miami, FL, "Where Everyone Buys Wholesale, Everyday."

Since 1926 – for 83 Years - Paints Especially Formulated for our Tropical Climate!

SS-102-2009

November 2009

DISTRIBUTOR OF HIGH PERFORMANCE PROPERTY PROTECTION AND MAINTENANCE COATINGS, REPRESENTING:



A UNIT OF RPM



LiquidPlastics



UNDERWATER
TECHNOLOGIES®



SANCHEM, INC.



ANDEK CORPORATION



SWITZERLAND

PALM BEACH ATLANTIC COLLEGE

Fungus/Mold Growth Inhibition of Antimicrobial Paints

Abstract

Steri-Shield, Steridex and Perma-White antimicrobial coatings were evaluated for fungus growth resistance according to a modified, ASTM D 5590-94 test procedure. The estimated percentage of overgrowth by three common fungi were:

1. *Aureobasidium Pullulans*: control = 100% in 8 days, Steridex = 100% in 11 days, Perma-White = 85% in 31 days and Steri-Shield = 68% in 31 days.
2. *Alternaria alternata*: control = 100% in 5 days, Steridex = 91% in 9 days, Perma-White = 93% in 9 days and Steri-Shield = 83% in 9 days.
3. *Aspergillus niger*: control = 100% in 5 days, Steridex = 100% in 10 days, Perma-White = 77% in 31 days and Steri-Shield = 41% in 31 days.

Conclusion

Steri-Shield was found to provide the greatest growth inhibition will all three fungi.

Purpose of the Study

Antimicrobial coatings offer a means of significantly reducing one of the major causes of sick building syndrome [SBS]. Symptoms of SBS include eye and/or nasopharyngeal irritation, nasal congestion, headache and migraines, dizziness, nausea, fatigue, rash and skin itch. SBS may affect 30 to 70 million U.S. workers, cost employers \$60 billion/yr in sick leaves and involve one out of three buildings. This report presents the effectiveness of three commercial, antimicrobial coatings to inhibit fungi growth.

Experimental Design

Since fungus seeding and growth rate in actual exterior or interior environments is uncontrollable [growth times varying anywhere from no growth to periods beyond 12 months and spore seeding may vary in density and fungi species], parameter-controlled, accelerated petri dish testing was performed using the industry's standard procedure outlined in ASTM D 5590-94. In accord with Jakubowski's recommendations [Journal of Paint & Coatings Industry, p-68, 7/98] *Aureobasidium pullulans* and *Alternaria alternata* were included along with *Aspergillus niger* fungus.

Painted samples [in triplicate or more] of the three antimicrobial coatings were placed in agar dishes and inoculated with fungus spore solutions at a concentration of 1.2×10^6 spores per mL. Samples were incubated in total darkness in a chamber at 25 C and 90 % humidity for four weeks to force mold to grow on the painted surfaces.

Results

The growth on each antimicrobial coating surface was monitored daily, and the amount of coating surface overgrowth was estimated as a percentage of the total. Estimates were made both with and without magnification. The results are presented graphically in Figures 1-3.



Summary of Results

1. Resistance to *Aureobasidium pullulans*:

Steri-Shield provided the greatest resistance to growth allowing 65% overgrowth after 31 days. The order of decreasing performance was:

Steri-Shield[65%] > Perma-White[85%] > Steridex[100%] = Control[100%]

2. Resistance to *Alternaria alternaria*:

Steri-Shield displayed the highest resistance to growth exhibiting 67% overgrowth after 8 days. The order of decreasing performance after 8 days was:

Steri-Shield[67%] > Steridex[81%] = Perma-White[83%] > Control[100%]

3. Resistance to *Aspergillus niger*:

Steri-Shield provided superior resistance to growth allowing 40% overgrowth after 31 days. The order of decreasing performance was:

Steri-Shield[40%] > Perma-White[76%] > Steridex[100%] = Control[100%]

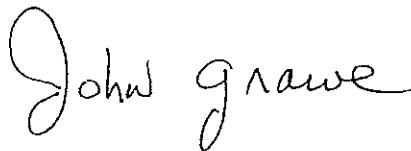
Conclusion

Steri-Shield was found to provide the greatest resistance to growth of the three paints with all three fungi.

Representation

These results were presented at Florida Academy of Sciences, Environmental Science Div., Florida Institute of Technology on March 10, 2000.

The undersigned certifies that the results cited herein are an accurate and actual representation of the outcomes of testing in the prescribed manner.



Dr. John Grawe
Research Director
Department of Chemistry

Figure 1. *Aureobasidium Pullulans* Resistance

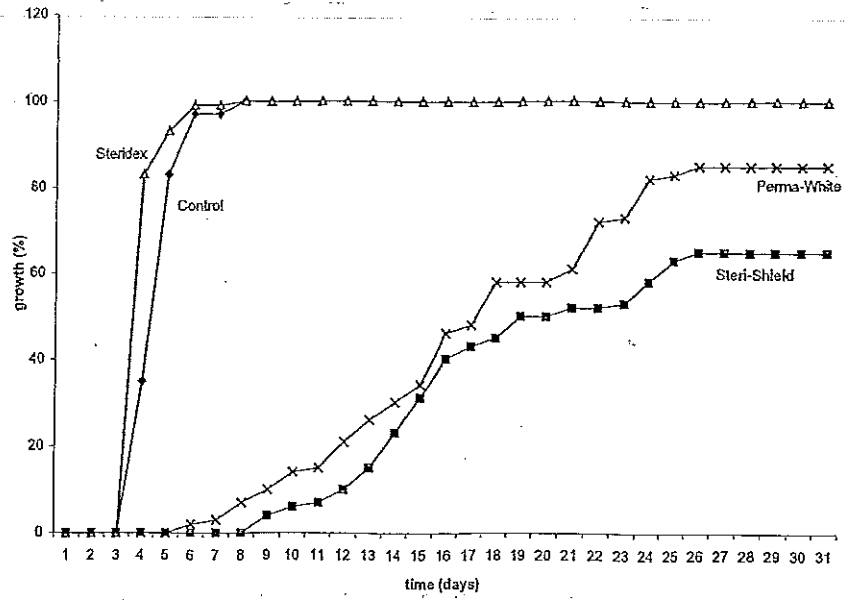


Figure 2. *Alternaria Alternata* Resistance

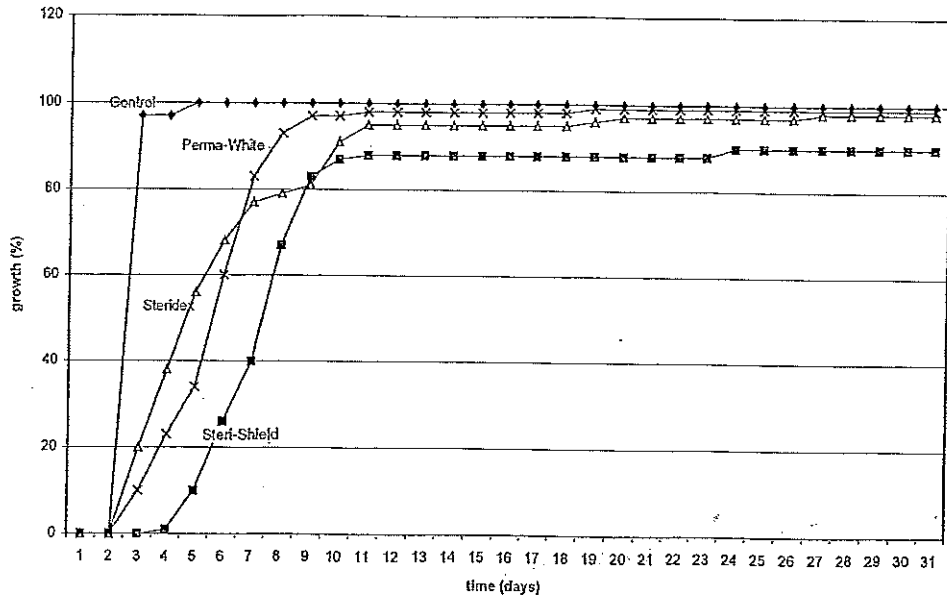


Figure 3. *Aspergillus Niger* Resistance

